Data sheet

HP 2530 Switch Series

Key features

- Cost-effective fully managed Layer 2 switches
- 24 or 48 Gigabit ports and 4 SFP uplink ports
- PoE+ models for voice, video and wireless
- WDRR, ACLs, IPv4/IPv6 host support
- Includes Lifetime Warranty, all software releases and technical phone support

Product overview

The HP 2530 Switch Series consists of four fully managed Layer 2 edge switches, delivering cost-effective, reliable and secure connectivity for business networks. Designed for entry level to mid-size enterprise networks, these Gigabit switches deliver full Layer 2 capabilities with enhanced access security, traffic prioritization, IPv6 host support, optional PoE+ and include a product Lifetime Warranty.

Each HP 2530 Switch has 24 or 48 RJ-45 10/100/1000 ports and four Small Form-Factor Pluggable (SFP) slots for fiber connectivity. For customers implementing power-over-Ethernet for voice, video or wireless deployments, the HP 2530-24G-PoE+ and the HP 2530-48G-PoE+ switches are IEEE 802.3af- and IEEE 802.3at-compliant with up to 30W per port.

The HP 2530 Switch Series is easy to use, deploy and manage via SNMP, CLI and Web GUI. The series offers flexible wall, table and rack mounting, quiet operation and improved power savings with features such as IEEE 802.3 az (Energy Efficient Ethernet). These switches include a Lifetime Warranty and all software releases and technical phone support.

Features and benefits

Quality of Service (QoS)

- **Traffic prioritization (IEEE 802.1p)**
  allows real-time traffic classification with support for eight priority levels mapped to either two or four queues; uses weighted deficit round robin (WDRR) or strict priority (SP)
- **Simplified QoS configuration**
  - **Port-based**
    prioritize traffic by specifying a port and priority level
  - **VLAN-based**
    prioritize traffic by specifying a VLAN and priority level
- **Class of Service (CoS)**
  sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, source port, and DiffServ
- **Rate limiting**
  sets per-port ingress enforced maximums for all ingressed traffic, or for broadcast, multicast or unknown destination traffic
- **Layer 4 prioritization**
  enables prioritization based on TCP/UDP port numbers
- **Flow control**
  helps deliver reliable communication during full-duplex operation

Management

- **Choice of management interfaces**
  - **Web graphical user interface (GUI)**
    HTML-based easy-to-use graphical interface allows configuration of the switch from any Web browser
  - **Command-line (CLI)**
    robust command-line interface provides advanced configuration and diagnostics
  - **Simple Network Management Protocol (SNMPv1/v2c/v3)**
    allows switch to be managed with a variety of third-party network management applications
- **Virtual stacking**
  single IP address management up to 16 switches
- **sFlow (RFC 3176)**
  wire-speed traffic accounting and monitoring configured by SNMP and CLI with three terminal encrypted receivers
- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP)**
  automates device discovery protocol for easy mapping by network management applications
- **Logging**
  provides local and remote logging of events via SNMP (v2c and v3) and syslog; provides log throttling and log filtering to reduce the number of log events generated
- **Port mirroring**
  allows traffic to be mirrored on any port or a network analyzer to assist with diagnostics or detecting network attacks
- **RMON (remote monitoring)**
  provides advanced monitoring and reporting capabilities for statistics, history, alarms and events
- **Find-Fix-Inform**
  finds and fixes common network problems automatically, then informs the administrator
- **Friendly port names**
  allow assignment of descriptive names to ports
- **Dual flash images**
  provide independent primary and secondary operating system files for backup while upgrading
- **Multiple configuration files**
  allow multiple configuration files to be stored to a flash image
- **Front-panel LEDs**
  - **Locator LED**
    allows users to set the locator LED on a specific switch to either turn on, blink, or turn off; simplifies troubleshooting by making it easy to locate a particular switch within a rack of similar switches
  - **Per-port LEDs**
    provides an at-a-glance view of status, activity, speed and full-duplex operation
  - **Power and fault LEDs**
    display any issues

Connectivity

- **IPv6**
  - **IPv6 host**
    allows the switch to be deployed and managed at the edge of an IPv6 network
  - **Dual stack (IPv4/IPv6)**
    supports connectivity for both protocols; provides a transition mechanism from IPv4 to IPv6
  - **MLD snooping**
    forwards IPv6 multicast traffic to the appropriate interface; prevents IPv6 multicast traffic from flooding the network
- **IEEE 802.3af Power over Ethernet (PoE)**
  provides up to 15.4 W per port to IEEE 802.3af-compliant PoE-powered devices such as IP phones, wireless access points, and security cameras
- **IEEE 802.3at Power over Ethernet Plus**
  provides up to 30 W per port to IEEE 802.3 for PoE/PoE+ powered devices such as video IP phones, IEEE 802.11n wireless access points and advanced pan/tilt/zoom security cameras (see product specifications for total PoE power available)
- **Auto-MDIX**
  adjusts automatically for straight-through or crossover cables on all ports

- **Pre-standard PoE support**
  detects and provides power to pre-standard PoE devices; see list of supported devices in the product FAQ at **www.hp.com/networking/support**
- **Small Form-Factor Pluggable (SFP) slots**
  provides fiber connectivity such as Gigabit-SX, -LX, -LH, and -BX with four SFP slots
- **Dual-personality (RJ-45 or USB micro-B) serial console port**
  gives easy access to switch CLI via front switch location of dual-personality RJ-45 or USB micro-B serial console port

Layer 2 switching

- **VLANs**
  provide support for 512 VLANs and 4,094 VLAN IDs
- **Jumbo packet support**
  supports up to 9220-byte frame size to improve the performance of large data transfers
- **16K MAC address table**
  provides access to many Layer 2 devices
- **GARP VLAN Registration Protocol**
  allows automatic learning and dynamic assignment of VLANs

Security

- **Access control lists (ACLs)**
  accomnodates IPv4/IPv6 port and VLAN-based ACLs
- **Source-port filtering**
  allows only specified ports to communicate with each other
- **RADIUS/TACACS+**
  eases switch management security administration by using a password authentication server
- **Secure Sockets Layer (SSL)**
  encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
- **Port security**
  allows access only to specified MAC addresses, which can be learned or specified by the administrator
- **MAC address lockout**
  prevents particular configured MAC addresses from connecting to the network
- **Multiple user authentication methods**
  - **IEEE 802.1X**
    is an industry-standard method of user authentication using an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server
  - **Web-based authentication**
    similar to IEEE 802.1X, it provides a browser-based environment to authenticate clients that do not support the IEEE 802.1X supplicant
  - **MAC-based authentication**
    authenticates the client with the RADIUS server based on the client's MAC address
- **Secure Shell (SSHv2) (client and server)**
  encrypts all transmitted data for secure, remote CLI access over IP networks
- **Secure Shell**
  encrypts all transmitted data for secure remote CLI access over IP networks
- **STP BPDU port protection**
  blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks
- **STP Root Guard**
  protects the root bridge from malicious attacks or configuration mistakes
- **Secure management access**
  securely encrypts all access methods (CLI, GUI, or MIB) through SSHv2 and SNMPv3
- **Custom banner**
  displays security policy when users log in to the switch
- **Secure FTP**
  allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file
- **Protected ports CLI**
  offers intuitive CLI to configure the source-port filters feature by allowing specified ports to be isolated from all other ports on the switch; the protected port or ports can communicate only with the uplink or shared resources
- **Authentication flexibility**
  - **Multiple IEEE 802.1X users per port**
    provides authentication of up to eight IEEE 802.1X users per port; prevents user "piggybacking" on another user's IEEE 802.1X authentication
  - **Concurrent IEEE 802.1X and Web or MAC authentication schemes per port**
    switch port will accept any of IEEE 802.1X and either Web or MAC authentications
- **Switch management logon security**
  helps secure switch CLI logon by optionally requiring either RADIUS or TACACS+ authentication

Convergence

- **LLDP-MED (Media Endpoint Discovery)**
  is a standard extension of LLDP that stores values for parameters such as QoS and VLAN to automatically configure network devices such as IP phones
- **IP multicast (data-driven IGMP)**
  automatically prevents flooding of IP multicast traffic
- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP)**
  is an automated device discovery protocol that provides easy mapping of network management applications

- **PoE and PoE+ allocations**
  support multiple method (automatic, IEEE 802.3at dynamic, LLDP-MED fine grain, IEEE 802.3af device class, or user specified) to allocate and manage PoE/PoE+ power for more efficient energy saving
- **Voice VLAN**
  uses LLDP-MED to automatically configure a VLAN for IP phones
- **IP multicast (data-driven IGMPv3)**
  automatically prevents flooding of IP multicast traffic

Resiliency and high availability

- **Port trunking and link aggregation**
  - **Trunking**
    supports up to eight links per trunk to increase bandwidth and create redundant connections. Supports L2, L3, and L4 trunk-load-balancing algorithm
  - **IEEE 802.3ad Link Aggregation Protocol (LACP)**
    eases configuration of trunks through automatic configuration
- **IEEE 802.1s Multiple Spanning Tree**
  provides high link availability in multiple VLAN environments by allowing multiple spanning trees; provides legacy support for IEEE 802.1d and IEEE 802.1w

Product architecture

- **Energy-efficient design**
  - **IEEE 802.3az**
    reduces power consumption during periods of low data activity
  - **Port low power mode**
    when no link is detected on a port, the port will automatically go into low-power mode to conserve energy
  - **Fans**
    variable speed fans help reduce power consumption
  - **Port LEDs**
    port link and activity LEDs can be turned off to conserve energy
- **Switch on a chip**
  provides highly integrated, high-performance switch design with a non-blocking architecture

Flexibility

- **Flexible mounting**
  - **Rackable**
    mountable in a standard 19-inch rack using included hardware
  - **Wall mountable**
    allows the switch to be mounted to a wall using included hardware
  - **Surface mountable**
    allows the switch to be mounted above or below a surface (such as a desk or table) with included hardware
- **Quiet operation**
  variable-speed fans adjust for the operating environment while lowering noise and energy consumption needs

Warranty and support

- **Lifetime warranty**
  for as long as you own the product with advance replacement and next-business-day delivery (available in most countries)†
- **Electronic and telephone support**
  limited electronic and telephone support is available from HP; to reach our support centers, refer to **www.hp.com/networking/contact-support**; for details on the duration of support provided with your product purchase, refer to **www.hp.com/networking/warrantysummary**
- **Software releases**
  to find software for your product, refer to **www.hp.com/networking/support**; for details on the software releases available with your product purchase, refer to **www.hp.com/networking/warrantysummary**

†HP warranty includes repair or replacement of hardware for as long as you own the product, with next business day advance replacement (available in most countries). The disk drive included with HP AllianceOne Advanced Services and Services zl Modules, HP Threat Management Services zl Module, HP AllianceOne Extended zl Module with Riverbed Steelhead, HP MSM765zl Mobility Controller and HP Survivable Branch Communication zl Module powered by Microsoft Lync has a five-year hardware warranty. For details, refer to the Software license and hardware warranty statements at **www.hp.com/networking/warranty**.

HP 2530 Switch Series

Specifications

	HP 2530-24G Switch (J9776A)	HP 2530-48G Switch (J9775A)
Ports	24 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 4 fixed Gigabit Ethernet SFP ports 1 Dual-personality (RJ-45 or USB micro-B) serial console port	48 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 4 fixed Gigabit Ethernet SFP ports 1 Dual-personality (RJ-45 or USB micro-B) serial console port
Physical characteristics		
	17.44(w) x 10.00(d) x 1.75(h) in (44.3 x 25.4 x 4.45 cm) (1U height)	17.44(w) x 10.00(d) x 1.75(h) in (44.3 x 25.4 x 4.45 cm) (1U height)
Weight	6.1 lb (2.77 kg)	6.8 lb (3.08 kg)
Memory and processor		
Processor	ARM9E @ 800 MHz, 128 MB flash, 128 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated	ARM9E @ 800 MHz, 128 MB flash, 128 MB DDR3 DIMM; packet buffer size: 3 MB dynamically allocated
Mounting	Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting	Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting
Performance		
	IPv6 Ready Certified	IPv6 Ready Certified
1000 Mb Latency	< 2.3 µs (LIFO 64-byte packets)	< 2.3 µs (LIFO 64-byte packets)
Throughput	41.6 million pps	77.3 million pps
Switching capacity	56 Gbps	104 Gbps
MAC address table size	16000 entries	16000 entries
Environment		
Operating temperature	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)
Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing
Altitude	up to 10,000 ft (3 km)	up to 10,000 ft (3 km)
Acoustic	Pressure: 34.0 dB	Pressure: 34.5 dB
Electrical characteristics		
Maximum heat dissipation	164 BTU/hr (173.02 kJ/hr)	203 BTU/hr (214.17 kJ/hr)
Voltage	100-127/200-240 VAC	100-127/200-240 VAC
Current	.6/.4 A	1.2/0.7 A
Idle power	28.8 W	29.5 W
Maximum power rating	48.0 W	59.5 W
Frequency	50/60 Hz	50/60 Hz
Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1
Emissions	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A
Immunity		
Generic	EN 55024, CISPR 24	EN 55024, CISPR 24
EN	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3	IEC 61000-4-3
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4
Surge	IEC 61000-4-5	IEC 61000-4-5
Conducted	IEC 61000-4-6	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3

HP 2530 Switch Series

Specifications (continued)

	HP 2530-24G Switch (J9776A)	HP 2530-48G Switch (J9775A)
Management	IMC - Intelligent Management Center; command-line interface; Web browser; configuration menu; Out-of-band management (serial RS-232C or MicroUSB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB	IMC - Intelligent Management Center; command-line interface; Web browser; configuration menu; Out-of-band management (serial RS-232C or MicroUSB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB
Notes	When using mini-GBICs with this product, mini-GBICs with revision "B" or later (product number ends with the letter "B" or later, e.g. J4858B, J4859C) are required.	When using mini-GBICs with this product, mini-GBICs with revision "B" or later (product number ends with the letter "B" or later, e.g. J4858B, J4859C) are required.
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)
	3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)	3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)
	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E)	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E)
	3-year, 24x7 SW phone support, software updates (UF792E)	3-year, 24x7 SW phone support, software updates (UF792E)
	4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)	4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E)
	4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)	4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E)
	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)	4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E)
	4-year, 24x7 SW phone support, software updates (UR951E)	4-year, 24x7 SW phone support, software updates (UR951E)
	5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)	5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E)
	5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)	5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E)
	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)	5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E)
	3 Yr 6 hr Call-to-Repair Onsite (UW368E)	3 Yr 6 hr Call-to-Repair Onsite (UW368E)
	4 Yr 6 hr Call-to-Repair Onsite (UW369E)	4 Yr 6 hr Call-to-Repair Onsite (UW369E)
	5 Yr 6 hr Call-to-Repair Onsite (UW370E)	5 Yr 6 hr Call-to-Repair Onsite (UW370E)
	1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E)	1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E)
	1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E)	1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E)
	1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)	1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E)
	1-year, 24x7 software phone support, software updates (HR852E)	1-year, 24x7 software phone support, software updates (HR852E)
	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E)	1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E)
	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)	1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E)
	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E)	1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E)
	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E)	3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E)
	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E)	3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E)
	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS558E)	4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS558E)
	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS559E)	4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS559E)
	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS560E)	5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS560E)
	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS561E)	5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS561E)
	Refer to the HP website at **www.hp.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP website at **www.hp.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

HP 2530 Switch Series

Specifications (continued)

	HP 2530-24G Switch (J9776A)	HP 2530-48G Switch (J9775A)	
Standards and protocols (applies to all products in series)	**Device management** RFC 1591 DNS (client) SSHv1/SSHv2 Secure Shell **General protocols** IEEE 802.1D MAC Bridges IEEE 802.1p Priority IEEE 802.1Q VLANs IEEE 802.1s Multiple Spanning Trees IEEE 802.1w Rapid Reconfiguration of Spanning Tree IEEE 802.3 Type 10BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3az Energy Efficient Ethernet IEEE 802.3x Flow Control RFC 768 UDP RFC 783 TFTP Protocol (revision 2) RFC 792 ICMP RFC 793 TCP RFC 826 ARP RFC 854 TELNET RFC 868 Time Protocol RFC 951 BOOTP RFC 1350 TFTP Protocol (revision 2) RFC 1542 BOOTP Extensions RFC 2030 Simple Network Time Protocol (SNTP) v4 RFC 2131 DHCP **IP multicast** RFC 3376 IGMPv3 (host joins only)	**IPv6** RFC 1981 IPv6 Path MTU Discovery RFC 2460 IPv6 Specification RFC 2925 Remote Operations MIB (Ping only) RFC 3315 DHCPv6 (client only) RFC 3513 IPv6 Addressing Architecture RFC 3596 DNS Extension for IPv6 RFC 4022 MIB for TCP RFC 4113 MIB for UDP RFC 4251 SSHv6 Architecture RFC 4252 SSHv6 Authentication RFC 4252 SSHv6 Transport Layer RFC 4254 SSHv6 Connection RFC 4293 MIB for IP RFC 4419 Key Exchange for SSH RFC 4443 ICMPv6 RFC 4861 IPv6 Neighbor Discovery RFC 4862 IPv6 Stateless Address Auto-configuration **MIBs** RFC 1213 MIB II RFC 1493 Bridge MIB RFC 2021 RMONv2 MIB RFC 2613 SMON MIB RFC 2618 RADIUS Client MIB RFC 2620 RADIUS Accounting Client MIB RFC 2665 Ethernet-Like-MIB RFC 2674 802.1p and IEEE 802.1Q Bridge MIB RFC 2688 MAU-MIB RFC 2737 Entity MIB (Version 2) RFC 2863 The Interfaces Group MIB	**Network management** IEEE 802.1AB Link Layer Discovery Protocol (LLDP) RFC 1098 A Simple Network Management Protocol (SNMP) RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events) ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3 **QoS/CoS** RFC 2474 DiffServ precedence, with 4 queues per port RFC 2475 DiffServ Architecture RFC 2597 DiffServ Assured Forwarding (AF) RFC 2598 DiffServ Expedited Forwarding (EF) **Security** IEEE 802.1X Port Based Network Access Control RFC 1492 TACACS+ RFC 2138 RADIUS Authentication RFC 2866 RADIUS Accounting Secure Sockets Layer (SSL)

HP 2530 Switch Series

Specifications (continued)

	HP 2530-24G-PoE+ Switch (J9773A)	HP 2530-48G-PoE+ Switch (J9772A)
Ports	24 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 4 fixed Gigabit Ethernet SFP ports 1 Dual-personality (RJ-45 or USB micro-B) serial console port	48 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only 4 fixed Gigabit Ethernet SFP ports 1 Dual-personality (RJ-45 or USB micro-B) serial console port
Physical characteristics		
	17.44(w) x 13.00(d) x 1.75(h) in (44.3 x 33.02 x 4.45 cm) (1U height)	17.44(w) x 13.00(d) x 1.75(h) in (44.3 x 32.26 x 4.45 cm) (1U height)
Weight	8.7 lb (3.95 kg)	10.4 lb (4.72 kg)
Memory and processor		
Processor	ARM9E @ 800 MHz, 128 MB flash, 128 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated	ARM9E @ 800 MHz, 128 MB flash, 128 MB DDR3 DIMM; packet buffer size: 3 MB dynamically allocated
Mounting	Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting	Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting
Performance		
	IPv6 Ready Certified	IPv6 Ready Certified
1000 Mb Latency	< 2.3 µs (LIFO 64-byte packets)	< 2.3 µs (LIFO 64-byte packets)
Throughput	41.6 million pps	77.3 million pps
Switching capacity	56 Gbps	104 Gbps
MAC address table size	16000 entries	16000 entries
Environment		
Operating temperature	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)
Operating relative humidity	15% to 95% @ 104°F (40°C), noncondensing	15% to 95% @ 104°F (40°C), noncondensing
Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Nonoperating/Storage relative humidity	15% to 90% @ 149°F (65°C), noncondensing	15% to 90% @ 149°F (65°C), noncondensing
Altitude	up to 10,000 ft (3 km)	up to 10,000 ft (3 km)
Acoustic	Pressure: 43.9 dB	Pressure: 43.9 dB
Electrical characteristics		
Maximum heat dissipation	135 BTU/hr (142.42 kJ/hr), (switch only: 135 BTU/hr; combined switch + max. PoE devices: 843 BTU/hr)	236 BTU/hr (248.98 kJ/hr), (switch only: 236 BTU/hr; combined switch + max. PoE devices: 1624 BTU/hr)
Voltage	100-127/200-240 VAC	100-127/200-240 VAC
Current	3.2/1.6 A	5.8/2.9 A
Idle power	25.2 W	40.1 W
Maximum power rating	247 W	476 W
PoE power	195 W	382 W
Frequency	50/60 Hz	50/60 Hz
Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the total power budget available to all PoE ports. Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the total power budget available to all PoE ports.	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the total power budget available to all PoE ports. Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PoE power is the total power budget available to all PoE ports.
Safety	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1	UL 60950-1; CAN/CSA 22.2 No. 60950-1; EN 60825; IEC 60950-1; EN 60950-1
Emissions	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A	FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A
Immunity		
Generic	EN 55024, CISPR 24	EN 55024, CISPR 24
EN	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3	IEC 61000-4-3
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4
Surge	IEC 61000-4-5	IEC 61000-4-5
Conducted	IEC 61000-4-6	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8

HP 2530 Switch Series

Specifications (continued)

	HP 2530-24G-PoE+ Switch (J9773A)	HP 2530-48G-PoE+ Switch (J9772A)
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3
Management	IMC - Intelligent Management Center; command-line interface; Web browser; configuration menu; Out-of-band management (serial RS-232C or MicroUSB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB	IMC - Intelligent Management Center; command-line interface; Web browser; configuration menu; Out-of-band management (serial RS-232C or MicroUSB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB
Notes	When using mini-GBICs with this product, mini-GBICs with revision "B" or later (product number ends with the letter "B" or later, e.g. J4858B, J4859C) are required.	When using mini-GBICs with this product, mini-GBICs with revision "B" or later (product number ends with the letter "B" or later, e.g. J4858B, J4859C) are required.
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E) 3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E) 3-year, 24x7 SW phone support, software updates (UF792E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E) 4-year, 24x7 SW phone support, software updates (UR951E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E) 3 Yr 6 hr Call-to-Repair Onsite (UW368E) 4 Yr 6 hr Call-to-Repair Onsite (UW369E) 5 Yr 6 hr Call-to-Repair Onsite (UW370E) 1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E) 1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E) 1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E) 1-year, 24x7 software phone support, software updates (HR852E) 1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E) 1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E) 1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E) 3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E) 3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E) 4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS558E) 4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS559E) 5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS560E) 5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS561E) Refer to the HP website at **www.hp.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E) 3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 SW phone support and SW updates (U6321E) 3-year, 24x7 SW phone support, software updates (UF792E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UR948E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UR949E) 4-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR950E) 4-year, 24x7 SW phone support, software updates (UR951E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UR952E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UR953E) 5-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone (UR954E) 3 Yr 6 hr Call-to-Repair Onsite (UW368E) 4 Yr 6 hr Call-to-Repair Onsite (UW369E) 5 Yr 6 hr Call-to-Repair Onsite (UW370E) 1-year, 4-hour onsite, 13x5 coverage for hardware (HR849E) 1-year, 4-hour onsite, 24x7 coverage for hardware (HR850E) 1-year, 6 hour Call-To-Repair Onsite for hardware (HR853E) 1-year, 24x7 software phone support, software updates (HR852E) 1-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support and software updates (HR851E) 1-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS554E) 1-year, 24x7 software phone support, software updates + 4 hour hardware exchange (HS555E) 3-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS556E) 3-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS557E) 4-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS558E) 4-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS559E) 5-year, 24x7 software phone support, software updates + Next Business Day Hardware Exchange (HS560E) 5-year, 24x7 software phone support, software updates + 4 hour Hardware Exchange (HS561E) Refer to the HP website at **www.hp.com/networking/services** for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

HP 2530 Switch Series

Specifications (continued)

	HP 2530-24G-PoE+ Switch (J9773A)	HP 2530-48G-PoE+ Switch (J9772A)	
Standards and protocols (applies to all products in series)	**Device management** RFC 1591 DNS (client) SSHv1/SSHv2 Secure Shell **General protocols** IEEE 802.1D MAC Bridges IEEE 802.1p Priority IEEE 802.1Q VLANs IEEE 802.1s Multiple Spanning Trees IEEE 802.1w Rapid Reconfiguration of Spanning Tree IEEE 802.3 Type 10BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3az Energy Efficient Ethernet IEEE 802.3x Flow Control RFC 768 UDP RFC 783 TFTP Protocol (revision 2) RFC 792 ICMP RFC 793 TCP RFC 826 ARP RFC 854 TELNET RFC 868 Time Protocol RFC 951 BOOTP RFC 1350 TFTP Protocol (revision 2) RFC 1542 BOOTP Extensions RFC 2030 Simple Network Time Protocol (SNTP) v4 RFC 2131 DHCP **IP multicast** RFC 3376 IGMPv3 (host joins only)	**IPv6** RFC 1981 IPv6 Path MTU Discovery RFC 2460 IPv6 Specification RFC 2925 Remote Operations MIB (Ping only) RFC 3315 DHCPv6 (client only) RFC 3513 IPv6 Addressing Architecture RFC 3596 DNS Extension for IPv6 RFC 4022 MIB for TCP RFC 4113 MIB for UDP RFC 4251 SSHv6 Architecture RFC 4252 SSHv6 Authentication RFC 4252 SSHv6 Transport Layer RFC 4254 SSHv6 Connection RFC 4293 MIB for IP RFC 4419 Key Exchange for SSH RFC 4443 ICMPv6 RFC 4861 IPv6 Neighbor Discovery RFC 4862 IPv6 Stateless Address Auto-configuration **MIBs** RFC 1213 MIB II RFC 1493 Bridge MIB RFC 2021 RMONv2 MIB RFC 2613 SMON MIB RFC 2618 RADIUS Client MIB RFC 2620 RADIUS Accounting Client MIB RFC 2665 Ethernet-Like-MIB RFC 2674 802.1p and IEEE 802.1Q Bridge MIB RFC 2688 MAU-MIB RFC 2737 Entity MIB (Version 2) RFC 2863 The Interfaces Group MIB	**Network management** IEEE 802.1AB Link Layer Discovery Protocol (LLDP) RFC 1098 A Simple Network Management Protocol (SNMP) RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events) ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED) SNMPv1/v2c/v3 **QoS/CoS** RFC 2474 DiffServ precedence, with 4 queues per port RFC 2475 DiffServ Architecture RFC 2597 DiffServ Assured Forwarding (AF) RFC 2598 DiffServ Expedited Forwarding (EF) **Security** IEEE 802.1X Port Based Network Access Control RFC 1492 TACACS+ RFC 2138 RADIUS Authentication RFC 2866 RADIUS Accounting Secure Sockets Layer (SSL)

HP 2530 Switch Series accessories

Transceivers

HP X121 1G SFP LC SX Transceiver (J4858C)
HP X121 1G SFP LC LX Transceiver (J4859C)
HP X121 1G SFP LC LH Transceiver (J4860C)
HP X111 100M SFP LC FX Transceiver (J9054C)
HP X112 100M SFP LC BX-D Transceiver (J9099B)
HP X112 100M SFP LC BX-U Transceiver (J9100B)
HP X122 1G SFP LC BX-D Transceiver (J9142B)
HP X122 1G SFP LC BX-U Transceiver (J9143B)
HP X121 1G SFP RJ45 T Transceiver (J8177C)

Cables

HP 0.5 m Multimode OM3 LC/LC Optical Cable (AJ833A)
HP 1 m Multimode OM3 LC/LC Optical Cable (AJ834A)
HP 2 m Multimode OM3 LC/LC Optical Cable (AJ835A)
HP 5 m Multimode OM3 LC/LC Optical Cable (AJ836A)
HP 15 m Multimode OM3 LC/LC Optical Cable (AJ837A)
HP 30 m Multimode OM3 LC/LC Optical Cable (AJ838A)
HP 50 m Multimode OM3 LC/LC Optical Cable (AJ839A)

Mounting Kit

HP X410 1U Universal 4-post Rack Mounting Kit (J9583A)

Products within this series are IPv6 Ready certified. See the Specifications section of this series for more information.

To learn more, visit hp.com/networking

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